

VI. Public Outreach and Education

Public outreach and education are of foremost importance to environmentally sound stormwater management. They raise the level of awareness of the county at large with regards to existing stormwater problems and environmentally friendly solutions. The primary goal of public outreach and education is “pollution prevention.” An aware county resident will most likely change pollution-causing behaviors and seek to help in supporting environmental programs.

Outreach and Education by the Stormwater Planning Division of DPWES

Stormwater Public Education and Involvement Program 2004 Overview

The public education and involvement program is an essential component to stormwater management. The county educates residents in hopes of changing behaviors that have adverse affects on Fairfax County’s waterways. Education is one of the least costly ways of improving the county’s watersheds. In this regard, public education is the purest form of implementing countywide water quality improvements.

Throughout 2004, the Stormwater Planning Division educated and engaged more than 5,000 Fairfax County residents through the following projects and activities:

Presentations on General Information

- 5 Fairfax County homeowners associations
- 5 Fairfax County civic organizations
- 10 Environmental groups
- 2 Churches—Adult education classes
- 3 Schools (elementary, high school, and college)

Presentations on Project Specific Information

Information was presented on the Perennial Streams Identification and Mapping Project, Stream Scoping Initiative, Stormwater Management Program, and Watershed Planning.

- 3 Government agencies (local and state)
- 2 National Conferences
- National Water Quality Monitoring Conference
- Cacapon Water Quality Monitors Workshop

Exhibition/Educational Booths at Public Events Sponsored by Fairfax County

- Celebrate Fairfax
- Fall for Fairfax
- Earth Day Expo
- Mt. Vernon Town Hall Meeting
- Providence District Environmental Workshop

Exhibition/Educational Booths at Non-County Public Events

- Naturefest at Runnymede Park
- Earth Day/Arbor Day at Northern Virginia Community College—Annandale Campus



Fall for Fairfax

- World Water Monitoring Day

Explore Your Watershed Walks

(in partnership with the Audubon Naturalist Society and Northern Virginia Soil and Water Conservation District) - Provide opportunities for residents to learn more about the organisms living in Fairfax County's stream valleys, the pollution that threatens them, and how we can work together to improve the quality of our local waterways and those downstream.

- Cub Run Watershed (2)
- Pohick Creek
- Cameron Run
- Bull Neck Run

Watershed Cleanups

SWPD staff in partnership with numerous other local agencies support the ongoing efforts to improve the aesthetics and health of Fairfax County's waterways by participating in semi-annual watershed cleanups. Large-scale annual and/or semi-annual events that the county participates in include:

- The Alice Ferguson Foundation's Potomac Watershed Cleanup
- The Virginia Department of Conservation and Recreation's Adopt-a-Stream Program
- The International Coastal Cleanup
- The Friends of the Occoquan's Occoquan River Shoreline Cleanup

Other initiatives include:

Master Watershed Steward Program

The Potomac River Greenways Coalition, in partnership with DPWES, NVSWCD, ANS, and the Potomac Conservancy, sponsored a free Master Watershed Steward Program for county residents interested in learning about watersheds and how to protect streams that flow into their sources of drinking water—the Potomac River and Occoquan Reservoir. The program consisted of eight evening sessions focusing on the technical and organizational information related to watershed management. Participants gained an understanding of watersheds, stream restoration, management plans and techniques, and how to organize communities for watershed protection. Fifty-four residents completed all of the program requirements, including 24 hours of volunteer service in their watershed (such as cleaning up stream valleys, monitoring streams, implementing low impact development practices, and restoring stream banks) and became certified as master watershed stewards.



Master Watershed Steward Program

Brochures

- Watershed Planning in Fairfax County, May 2004
- Watershed Stewardship Opportunities in Fairfax County, May 2004

Regional Pollution Prevention Outreach Campaign

(in partnership with NVRC and County of Arlington)

- Allocated more than \$75,000 in general funds for this project

Web Page Development

- Web pages were developed for:
 - Stormwater Management home page
www.fairfaxcounty.gov/dpwes/stormwater
 - Stormwater Needs Assessment
www.fairfaxcounty.gov/dpwes/stormwater/needsassessment.htm
 - Occoquan River Dredging project
www.fairfaxcounty.gov/dpwes/stormwater/occoquan.htm
- Online stormwater information is expected to expand over the next year

Fairfax Watershed Network

The Fairfax Watershed Network is a dedicated group of organizations, agencies, and individuals that support and promote the improvement and protection of Fairfax County's streams and watersheds through outreach and education efforts. SWPD is a founding member of this group.

Earth Force

SWPD serves as a technical resource for Earth Force's Global Rivers Environmental Education Network (GREEN) program. Responsibilities include identifying stream monitoring sites, assisting with outdoor training exercises, developing presentations, and presenting to students and teachers in a classroom setting.

Earth Force engages young people as active citizens who improve the environment and their communities now and in the future.

GREEN builds on national academic standards and teaches elementary, middle, and high school-aged youth essential skills including critical thinking, teamwork, problem solving, and the application of science to real world problems. Using proven scientific methods, GREEN teaches young people to assess the quality of their local water, using water monitoring equipment and conducting classroom research to understand the health of their watershed.

Volunteer Stream Water Quality Monitoring

- Assisted in training efforts for volunteer monitoring programs in Fairfax County, including:
 - Audubon Naturalist Society
 - Northern Virginia Soil and Water Conservation District

The Environmental Horticulture Division (EHD) of Fairfax County Extension

The Environmental Horticulture Division (EHD) of Fairfax County Extension provides research-based technical information from Virginia Polytechnic Institute and State University (VPI) promoting sound landscaping practices that reduce the quantity of pesticide and fertilizers added to the environment, slow runoff rates, keep erosion to a minimum, and encourage significant absorption of pollutants by plant materials.

EHD programs educate private residents on ways of achieving attractive and sustainable home landscapes with the minimum use of fertilizer, pesticides, and other chemical inputs. Each year:

- One-on-one advisory services reach more than 15,000 residents
- Low-input lawn care advice is circulated to more than 25,000 residents through monthly articles

in resident association newsletters

- Approximately 4,000 VPI publications are distributed on such topics as “Lawn Fertilization in Virginia,” “Horse Pastures in Virginia,” and “Selection of Plant Material Suitable for this Area.”
- More than 2,500 residents and commercial horticultural companies use the extension office’s soil testing service to determine the precise levels of fertilizer and liming necessary for a healthy landscape (Note: In part, due to information and assistance provided by the Fairfax County Public Library, Fairfax is the greatest user of this service in Virginia.)
- Over 40 pre-recorded messages on environmental horticulture and horticulture topics are available to the public 24 hours a day on Parkline at 703-324-8700

EHD also works intensively with horticulture professionals, both in private industry and local government. In addition to providing one-on-one technical advice on request, EHD provides educational and logistical assistance to the Northern Virginia Nursery and Landscape Association and the Professional Grounds Management Society. In 2004, more than 770 people received professional training at the annual three-day Greens Industry Professional Seminar. Similarly, EHD plays a major role in the Virginia Nursery and Landscape Association Certification training.

Pesticide use and safety is a major focus of the EHD program, which provides educational materials and logistical support for pesticide applicator certification in cooperation with the Virginia Department of Agriculture and Consumer Services (VDACS). A three-day training session prepared over 65 landscape professionals and local government employees for testing with VDACS to become certified Pesticide Applicators or Registered Technicians. Most, if not all, of the participants were already applying pesticides without proper certification. In addition, more than 450 horticultural professionals and members of the structural pest control industry received recertification training and credit at the annual Greens Industry Seminar. At a Procrastinators Re-certification Training in late June, 81 participants had the ability to get re-certified in five states and in eighteen categories.

EHD offers technical support to other agencies on demand, for example, the review of nutrient and pesticide management plans for the Department of Planning and Zoning (DPZ). The nutrient and pesticide management plans are developed pursuant to development conditions that are negotiated by DPZ during the zoning process for cases (typically special permit or special exception applications) involving substantial turf-oriented recreational activities (e.g. athletic fields, golf courses, and driving ranges).

Public Reporting

Over the last decade, there have been numerous programs developed to promote stream awareness in Northern Virginia through a variety of activities. These programs include, but are not limited to, the Department of Conservation and Recreation’s Adopt-A-Stream program, which focuses on stream clean-ups; the Northern Virginia Soil and Water Conservation District and Audubon Naturalist’s Society’s Volunteer Stream Monitoring Program, both of which collect benthic macroinvertebrates, use simple water chemistry tests, and observe physical changes in the stream’s morphology; and the Potomac Conservancy, a non-profit organization that monitors the state of the Potomac River shoreline for potential pollution problems from illegal activities.

Volunteers in the NVSWCD stream monitoring program keep an eye on stream segments in their neighborhoods. They routinely report sedimentation and pollution problems that they observe.

Ned Foster, president of the Friends of Little Rocky Run, keeps a lookout for threats to this stream and reports E&S control failures, violations in the RPA, blockages, and other problems to the appropriate county agencies.

The Potomac Conservancy, a non-profit organization, keeps an eye on the Potomac River shoreline, often using canoes to conduct surveillance. It reports pollution problems, such as sediment plumes, and illegal activities such, as clear-cutting, to DPWES.

Fairfax County Health Department

Environmental Health Specialists presented 20 public awareness programs to approximately 500 county residents during the year, each about the Chesapeake Bay requirement to pump septic tanks every five years. Other outreach programs have been given that incorporate preventative maintenance issues for onsite sewer disposal systems, a stream awareness component to alert residents to possible stream health hazards, and information on how to report stream pollution problems.

Fairfax County Public Schools

Environmental issues and concerns are a part of many science courses. The Fairfax County Public Schools curriculum for its approximately 14,000 seventh grade students includes a course in “Investigations in Environmental Science.” During this course, the students study basic ecology concepts and how to apply them to their local watershed and the Chesapeake Bay ecosystem. The curriculum for its approximately 10,000 ninth grade students includes “Biology 1,” in which the students explore the interactions of populations in ecology. Another course is “Chemistry 1,” which addresses chemistry in the community and water quality issues. In it, issues involving the use of resources as it relates to the conservation of matter are addressed. A course in “Geosystems” is also available and includes a section on the hydrologic cycle and a study of the effect of economic and public policy on our resources. The “Geosystems” course includes specific environmental projects tied to environmental science courses across the county. Robinson students in IB Environmental Systems are doing stream monitoring through the Izaak Walton League’s Virginia Save Our Streams Program. Students at Marshall High School are studying the effect of a rain garden on the water that comes off the school parking lot. Other projects examine geomorphologic changes and nonpoint source pollution. Many schools also offer advanced environmental science courses. In addition to the courses offered, there are school-based projects that examine geomorphologic changes, nonpoint source pollution, and stream monitoring.

The picture on the right is of seventh grade GT Center students from Rocky Run Middle School. They grew underwater grasses, in conjunction with the Chesapeake Bay Foundation’s Bay Grasses in Classes program, as part of a larger unit studying the Chesapeake Bay. The students learned about the importance of the underwater grasses to the health of the Chesapeake Bay—they help reduce the amount of sediments and nutrients in the Chesapeake Bay and its tributaries and provide habitat for numerous species. As a culmination to the project, GT Center students went on a field trip to Mason Neck State Park where they had the opportunity to plant the grasses grown in



Seventh grade GT Center students from Rocky Run Middle School, May, 2004

their science classrooms into the Potomac River. In addition to planting the grasses, students participated in other activities with the Chesapeake Bay Foundation staff such as seining for fish and testing the water quality of the river.

In 2001, Daniels Run began a school-wide environmental education program. The objective was to increase the students' understanding of how watersheds function and the impact development has on them, focusing particularly on their specific watershed and its interaction with the larger system. An effort was made to create a sense of environmental stewardship among the students. The next plan of action is to create a riparian buffer along the stream to increase biodiversity and habitat and reduce stormwater runoff. They received a VA Naturally grant to help them in this effort. The participating students will gain a fundamental understanding of stormwater runoff issues in developed areas and the value of riparian buffers in reducing the negative impacts of development. Soil and water conservation will be addressed in very real terms. Students will actually create an area that will improve the water quality within the courtyard area (The Gardens) where students grow crops, using red wiggler worm compost as fertilizer. The red wigglers are fed fruit and vegetable scraps from the school cafeteria.



The students at Daniels Run have been given the opportunity to get involved in many environmental projects including the creation of a Bayscaped area located on the school grounds. This area includes two rain gardens, a pollinator garden, a native grass hillside, a restored forest edge and a restored forest understory. Other activities and accomplishments include: certification in June, 2004, as Schoolyard Habitat #2129 by the National Wildlife Federation; a paper-recycling program maintained by Student Council Association (SCA) members; and design of a storm drain marker that will go on every storm drain in the City of Fairfax.

Newspaper articles about the program at Daniels Run can be found through:

- **Washington Post**, Saturday, November 27, 2004, "These Schoolchildren Take a Down-to-Earth Approach to Learning About Their Habitat"
- **Fairfax Connection**, June 10-16, 2004, "Protecting the Environment at Daniels Run Elementary."
- **Conservation Currents**, Northern Virginia Soil and Water Conservation District, December 2003, "Science Grows at Daniels Run Elementary"
- **Close Up**, A Focus on the City of Fairfax Schools, September-October 2003, "A Watershed Event"
- **Fairfax Connection**, July 3-9, 2003, "Please Feed the Worms, Daniels Run Students embrace New Environmental Curriculum"
- **Close Up**, A Focus on the City of Fairfax Schools, March 2003, "Young Scientists Flower at Daniels Run"

In 2004, the Solid Waste Management Program (SWMP) continued to support school recycling efforts through the SCRAP (Schools County Recycling Action Program) program. SWMP published a catalog (the SCRAPbook) of the many educational opportunities available to teachers and students through the SWMP and the Clean Fairfax Council. SWMP awarded grants worth \$3000 to six Fairfax County public schools to fund school environmental projects. For Clean Your Files Week, outstanding recycling and

reuse projects from scout troops and school classes were rewarded with certificates for free ice cream cones from Ben & Jerry's. Finally, over 250 students entered an essay contest about the "Adventures of the Recycle Guys."

Fairfax County Recycling

During 2004, Clean Fairfax Council (CFC) provided information on litter prevention and recycling to Fairfax County Public Schools. The executive director or her designees made grade-specific presentations in the schools on issues including litter control, recycling, graffiti, and water pollution caused in part by litter. Twice during the year, the CFC offered a program called "Critters Don't Need Litter," which stressed the havoc roadside litter causes wild animals that come to the roadside. The CFC distributed litter/recycling newsletters to all fifth and sixth grade students. Each year, the CFC sponsors the Fairfax County Earth Day/Arbor Day Celebration and participates in two county events—Fall for Fairfax and Celebrate Fairfax. Additionally, the CFC sponsors two countywide cleanups (spring and fall), which involved 20,000 volunteers in 2004.

The Solid Waste Management Program (SWMP) met its goal of collecting 5,000 pairs of shoes as part of the NIKE Reuse-a-Shoe Program. Over 40 Fairfax County government employees were recognized with a Team Excellence Award for their participation in the program. The SWMP is currently applying for a grant for \$25,000 toward a floor made from NIKE Grind (ground up shoes) for a local RECenter.

The SWMP continued its innovative and productive partnership with ServiceSource to recycle used computers. ServiceSource is a nonprofit that employs people with disabilities to disassemble and recycle computers. The program has co-sponsored and advertised several community collection events in partnership with nearly a dozen schools, businesses, and nonprofit organizations. Advertisements were placed on the radio, on cable TV, and in local newspapers. Three highly successful computer recycling events were held in 2004. Over 400 tons of computers have been recycled since the program's inception in 2002.

SWMP staff made presentations and sent information to community groups and schools. Citizens were able to learn more about recycling at booths at various community fairs and festivals including Celebrate Fairfax, Fall for Fairfax, Earth Day/Arbor Day, and the Kingstowne Festival. The Solid Waste Management Program's booth was awarded a blue ribbon for design at Celebrate Fairfax which draws over 10,000 attendees yearly.

To encourage commercial recycling, the SWMP continued its business recycling awards program. Three businesses won awards. In addition to presenting the awards to the recipients at Earth Day/Arbor Day, staff traveled to each winner's site to present the awards at a staff gathering and maximize program exposure.

Internally, the Employee Recycling Committee (ERC) has continued to thrive. The ERC has increased its membership to 25 employees in 2004 and has sponsored several events to encourage employees to recycle including contests and seminars for Clean Your Files Day, a countywide Earth Day Expo, and an intranet site with county employee recycling information. The ERC was recognized by the Virginia Recycling Association as one of the top recycling efforts in the state in 2004.

The Recycling Ambassadors program continues with over 100 people volunteering over the course of 2004. The Junior Ambassador program launched last year has continued to grow with over 300 hours of

service given by students in 2004. Top volunteers were recognized at our America Recycles Day event last November.

Fairfax County participated cooperatively with the Metropolitan Washington Council of Governments (MWCOG) in a regional recycling radio campaign, which was broadcast over 7 radio stations during a two-week period. The county also partnered with MWCOG to expand the Recycle Guys Awareness Campaign. Recycle Guys PSAs were played extensively on local cable systems and Recycle Guys signs were placed on the outside and inside of Washington Metropolitan Area Transit Authority buses. Additionally, the county participated with MWCOG in the America Recycles Day Campaign. To show their support for this important effort, the Fairfax County Board of Supervisors proclaimed November 15th as America Recycles Day. Over 90,000 America Recycles Day pledge cards were distributed through county schools, libraries, and recreation centers and at county events. Both of the regional prizes were awarded to Fairfax County residents. The County sponsored a highly successful Community Recycling Road Show where over 30 tons of computers, 130 bicycles, 500 cell phones, and nearly 300 pairs of eyeglasses were collected. Nearly a dozen community groups were involved in the effort, which was heavily advertised throughout Fairfax County.

The Solid Waste Management Program maintains a web site at:

<http://www.fairfaxcounty.gov/dpwes>

The site includes information on residential, office, and yard waste recycling; buying recycled content products; and reducing waste. It also provides electronic versions of most Solid Waste Management Division publications. New information about recycling education opportunities and events is constantly being added to the Web site. New this year is the *Fairfax Recycler* e-newsletter, which is sent to over 500 list-serve subscribers.

Northern Virginia Soil and Water Conservation District (NVSWCD)

During 2004, NVSWCD hosted six Green Breakfasts to provide an opportunity for the community to hear about topics of environmental interest and discuss environmental issues. Presentations and discussions included:

- erosion and sediment control on construction sites
- air quality initiatives
- land conservation programs
- the county's Environmental Vision and Plan
- the Potomac Tributary Strategies
- proposals to fund the cleanup of the Chesapeake Bay

NVSWCD sponsors neighborhood education programs about the dangers of dumping pollutants (e.g., leaves, fertilizer, oil, toxic chemicals, animal waste, trash, etc.) in storm drains. The information and education program culminates with stenciling a message on the face of several drains throughout the neighborhood. The NVSWCD has the responsibility for guiding storm drain stenciling projects in the county and ensuring they adhere to District and VDOT standards. In 2003, two stenciling projects brought nonpoint source pollution prevention information directly to 740 households.

The NVSWCD provides technical assistance and information to county agencies and citizens for the prevention and control of soil erosion; the management of stormwater; the reduction of nonpoint source

pollution in runoff to streams and lakes; and the sound management of our urban, suburban, and agricultural lands.

During 2004, NVSWCD received 461 public information inquiries and distributed approximately 4,217 brochures and flyers related to the reduction of nonpoint source pollution. NVSWCD's Water Quality Stewardship Guide is available on its Web page. It contains a great deal of useful information about water and watersheds, water quality, and the sources of nonpoint source pollution, and suggests specific actions citizens can take to improve water quality.

Education resource materials, watershed awareness programs, and an interactive watershed model provided by NVSWCD are aimed at teachers, youth, schools, Scout groups, and the general public. The watershed model, called an *Enviroscape*, is used to demonstrate the sources and methods for controlling nonpoint source pollution from various land uses. During 2004, the watershed model was used during six presentations to educate 145 people.

NVSWCD provided technical advice to 669 homeowners and homeowner associations, including 248 on-site visits to advise on erosion, drainage, and other environmental problems, and 45 site visits to advise on pond management.

NVSWCD provides administrative, technical, and educational support to citizen-based watershed groups, including the Difficult Run Community Conservancy, Fairfax Trails and Streams, Friends of Sugarland Run, Friends of Cub Run, and Friends of Little Rocky Run. NVSWCD, DPWES, ANS, the Potomac River Greenways Coalition, and several watershed groups meet bi-monthly as the "Fairfax Watershed Network." Their purpose is to exchange information, to promote community-based watershed stewardship groups, and to provide support.

Envirothon

NVSWCD sponsors Envirothon, a hands-on natural resources competition between teams of high school students. Teams demonstrate their knowledge in aquatics, forestry, soil, wildlife, and a special topic—this year it was natural resource management in the urban environment. They advance from a local competition to the regional, state, and national competitions. In March, NVSWCD provided training and a local competition for three teams, and, in April, hosted the regional Envirothon at Wakefield Park. DPWES staff helped with training and judging.

NVSWCD's annual seedling program emphasizes the role of vegetation in preventing erosion, conserving energy, and decreasing and filtering stormwater runoff. Besides being aesthetically pleasing, trees and shrubs, particularly those planted in and near riparian areas, help to protect stream water quality and channel stability. In 2004, 5,600 tree and shrub native plant seedlings, mostly in 400 packages of 14 seedlings each, were sold to citizens at a small cost.

NVSWCD continues to expand its reach with a home page that is part of Fairfax County's Internet site. The site gets an average of 6,000 visitors each month and is credited with increasing the county's environmental presence on the web. By the end of 2004 there were 156 "pages" online. NVSWCD is a member of the DPWES web team and participated in the creation of an Environmental Channels page to enable citizens to find environmental services and resources more easily. NVSWCD's Web address is as follows:

<http://www.fairfaxcounty.gov/nvswcd>

NVSWCD published and circulated Conservation Currents, an eight-page newsletter, three times in 2004. In addition to the printed newsletter, NVSWCD distributes the newsletter via e-mail upon request and

posts the articles on its Web page. The most-visited articles on the Web included: Building a Farm or Amenity Pond; You and Your Land—Soils and Drainage; Green Roof at Yorktowne Square; Native Seedling Sale; Frequently Asked Questions; Volunteer Stream Monitoring; Soils Information; and Agriculture and Horses.

More than 4,855 Earth Team volunteer hours were logged by citizens doing stream monitoring, tree plantings, and stream cleanups; participating in a program to control the goose population; helping with seedling programs and seminars; and engaging in regional and state environmental efforts. Earth Team is a USDA-Natural Resources Conservation Service program coordinated by NVSWCD.

Fairfax County Park Authority

As in past years, Fairfax County Park Authority sponsored and organized stream valley clean up days in many of our Stream Valley Parks. These day-long volunteer events draw many citizens into the creeks and woods, providing excellent learning opportunities as well as removing more than six dumpster loads of trash in 2004. As in past years, the Park Authority sponsored programs and hosted citizen groups to plant or enhance riparian buffers. In addition, the Park Authority partnered with the Virginia Department of Game and Inland Fisheries, Trout Unlimited, and Dominion Virginia Power to conduct a stream stabilization on Accotink Creek at Americana Park. This project stabilized banks and provided habitat improvements that will benefit water quality as well as the on-going trout stocking program.

The Park Authority worked with other county agencies on numerous projects to educate citizens on the importance of maintaining healthy wetlands.

As part of its park planning process, the Park Authority looks for opportunities during conceptual site planning to recommend low impact stormwater management techniques. An example of this in 2004 was the adoption of a master plan for Popes Head Estates Park, which includes such techniques in the development scope for site projects. Other significant projects included the renovation of two ponds at Green Spring Gardens; the completion of the Mason District Park pond conversion project; and planning for three bank stabilization projects on Difficult Run upstream of Brown's Mill Road and Georgetown Pike in conjunction with planned stream valley trail improvements.

The Park Authority worked with other county agencies on numerous projects, including the retrofit of a DPWES stormwater management pond, upstream of Hidden Pond, to modify the outlet structure to reduce the impacts from the one-year storm. This project also included the renovation of the forebay of Hidden Pond to increase capacity and efficiency and will include a future bank stabilization project of the stream channel between the two ponds.

Virginia Department of Forestry

The Virginia Department of Forestry (VDOF) worked with volunteers from organizations such as the Chesapeake Bay Foundation, Difficult Run Community Conservancy, Potomac Conservancy, and Eagle Scouts in 2004 to plant approximately 2,050 seedlings within Fairfax County. VDOF continues to plant riparian buffers in watersheds throughout the county. VDOF assisted an Eagle Scout with a stormwater management project in the Rocky Run watershed. The project resulted in erosion reduction along a 200-foot drainage-way next to New Braddock Road. A buffer of shrubs was planted along the drainage-way to stabilize the embankment.

VDOF works with Fairfax County with the **Agricultural and** watershed/water quality presentations are given on a regular basis to students, homeowners, professionals, and organizations. Volunteers are educated and enlisted to plant riparian buffers. Rain garden presentations and workshops are given for garden clubs, homeowner associations, and professionals. Brochures and exhibits have been developed for public outreach at festivals, Arbor Day, and other environmental celebrations. There were 21 such activities presented by VDOF in 2004.

VDOF assisted Fairfax ReLeaf with the installation of a rain garden in 2004 at Crossfield Elementary School. This particular garden will capture parking lot and playing field surface flow before it enters Difficult Run. Parking lots contribute petroleum products to stormwater; playing fields are highly managed with fertilizers rich in nitrogen and phosphorus, contributing to high nutrient levels in storm water. The garden is located on Fairfax County Park Authority property. A guide was created to assist teachers with planning and establishing rain gardens. Literature, demonstration gardens, and workshops are the means being used to educate the public about the values of these stormwater management tools. VDOF maintains a Web site for riparian buffer and rain garden information at:

<http://www.dof.virginia.gov>

The Virginia Department of Forestry assists Fairfax County with the Agricultural and Forestal District Program. This program is aimed at tax incentives for landowners with 20 acres or more of land in agricultural and forest management. Stream management zones are particularly noted on these plans and efforts are made to include buffers from the agricultural uses. The protection of forest cover and water quality are both promoted in the Agricultural and Forestal management plans. Approximately ten to twelve such plans are completed each year.

Reston Association

The Reston Association (RA), the homeowners association for the large, planned community of Reston, has an active watershed and lakes management program that focuses on the monitoring and improvement of water quality in its streams, lakes, and ponds; public education; and innovative approaches to erosion and drainage control. The Reston Watershed Action Group (ResWAG), an active citizen stakeholders' group, helps educate and engage members of the community in watershed improvements efforts.

Accomplishments and efforts in 2004 related to stormwater management and watershed improvement include:

- RA started working with Northern Virginia Stream Restoration, L.C., the Virginia Department of Environmental Quality, the U.S. Army Corps of Engineers, the U.S. Fish and Wildlife Service, and the U.S. Environmental Protection Agency to establish the groundwork for developing the Reston Stream Restoration Banking Instrument. The scope of work entails restoring all of the streams identified and assessed in the Reston Watershed Management Plan, as well as additional priority reaches identified by RA staff, using natural channel design concepts.
- RA developed a "Help Our Watersheds—Living in the Potomac and Chesapeake Bay Watershed" brochure with funding from a Chesapeake Bay License Plate Grant. The brochure covers several topics: controlling runoff, preventing and managing erosion, improving water quality with "bayscaping," and helpful local resources.
- RA continued its volunteer stream monitoring program in conjunction with the Northern Virginia Soil and Water Conservation District (NVSWCD) VA Save Our Streams program. The NVSWCD provided valuable assistance and in-kind support throughout the year. In February

2004, RA co-hosted an indoor “Introduction to Stream Monitoring” workshop with the NVSWCD.

- Water quality in Reston’s four lakes (Anne, Newport, Thoreau, and Audubon) and two ponds (Bright and Butler) was monitored from April through September. The annual lakes report provided data analysis and recommendations.
- In late 2004, Reston’s four primary lake spillways were inspected. In addition to the dive inspections, the riser stems and gates were cleaned and greased. An inspection report and dive videos were provided to RA.
- RA’s shoreline stabilization guidelines were updated. Several shoreline and streambank stabilization projects using biologs, erosion cloth, and native plantings were installed. Staff worked with several clusters and individual homeowners on shoreline stabilization projects. RA continues to promote natural shoreline stabilization and encourages the use of more environmentally sensitive materials for bulkheads and docks as opposed to conventional pressure-treated timber.
- In April 2004, RA staff and volunteers participated in the sixteenth Annual Potomac Watershed Cleanup, hosting numerous cleanup sites along Snakeden Branch, The Glade, and Colvin Run tributaries. RA staff members and 128 volunteers removed 182 bags of trash, weighing in at approximately 2.6 tons, in addition to other items including shopping carts, chairs, mattresses, bikes, and various car and construction parts.
- RA staff worked on a number of culvert improvement and stabilization projects throughout Reston.

The Yorktowne Square Condominium Association Green Roof

Public tours have been given of the 5,000 sq. feet green roof and the 20 feet, by 30 feet, by 4 feet deep rain garden constructed at Yorktowne Square Condominium in 2004. In addition, a booklet was prepared (“Down the Drain, a Story about Urban Water”) to help educate the public. The booklet covers many stormwater and watershed issues and gives a detailed account of Yorktowne’s plan and its implementation. It serves as an educational piece as well as a guide for other individuals and communities and is currently being prepared for the web to enable interested parties to download it directly.